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Federal Communications Commission
Washington, D.C. 20554

Notice of Proposed Rule Making FCC 04-189
Docket number EB 04-296
Review of the Emergency Alert System

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To the Commissioners:

I would like to enter the following comments regarding EAS and its usefulness in alerting the public. The NPRM asks several questions regarding the current EAS and its uses for non-federal alerts, such as the terrorist attacks on 9-11-01. There is little doubt that EAS should be revised to meet the current threats, both man-made and natural, against the citizens of the United States.

I. Back round:

The current EAS outlets for reaching the general public are Broadcast Radio, Broadcast Television, Cable Television and the NOAA Weather Radio, now being touted as an "All Hazards Network." Other media outlets such as Satellite Radio (XM and Sirius), Satellite TV (Dish Network and Direct TV), and the Internet have no requirement, nor the technical capability to transmit EAS messages. There is also the increased use of personal listening devices such as CD players and MP3 players and a growing population of non-English speaking persons living in the US. All of these factors add up to a significant percentage of the population that will not receive an EAS message even if the current system were working flawlessly, which it is not.

A. Weaknesses:

1. The Media Security and Reliability Council (MSRC), a group consisting of members from broadcast and cable television, conducted a survey of all fifty state emergency agencies regarding EAS⁽¹⁾. This survey shows a great deal of confusion regarding the use of EAS on state and local levels. Here are some basic results of the survey:

(a). Plans. Almost every state except two had working plans. Local plans

⁽¹⁾ Media Security and Reliability Council, *Final EAS Survey Results*, May 23, 2003, 8-86.

were another story: 13 states reported all local areas had plans, 19 states reported some local plans, 10 states reported no local plans at all, with 4 states reporting local plans were not required. 8 states reported they were not sure of local plans.

(b). Monitoring problems. 17 states reported monitoring problem with the national Primary Entry Point (PEP) stations. Several others reported monitoring difficulties with LP-1 or SR stations. 20 states are still using over the air daisy-chain distribution as the primary method of transmitting EAS.

(c). Most states reported that the EAS implementation was impeded by lack of funding.

(d). Some states even reported difficulties with political infighting in forming local or state plans.

The lack of local plans indicates that local, e.g. county or city, officials, would have a very difficult time accessing EAS during an emergency. It would be safe to say that in those areas without working plans, government authorities would not know where to begin when attempting to originate an EAS message. Even in areas where plans exist, if regular practice is not being conducted, those responsible for originating EAS messages will have difficulty with the procedure during an emergency.

2. During power outages, radio stations in particular play a crucial role in disseminating information to the public. The MSRC found that only 56 percent of radio station had emergency power capabilities at their studio locations and 47 percent had emergency power at their transmitter sites⁽²⁾. During the Northeast Blackout of 2003, many radio stations were off the air because of a lack of emergency power.

3. The voluntary nature of local and state level EAS coupled with a daisy-chain distribution system is a recipe for failure. If any Local Primary (LP-1 or LP-2) station decides not to air an EAS alert, all of the other stations below the LP station will not receive the alert and neither will most of the listening public.

4. The National Weather Service, at times, over uses the system. Too many alerts sent out for things like thunderstorm watches, thunderstorm warnings, high wind warnings and so on blunt the impact of an "Emergency Alert" system. The public will tune out the alerts as just another interruption of the program material. The criteria for sending weather alerts needs to be changed so that alerts are sent for unusual or life threatening events. In the Lower Hudson Valley operational area for example, we expect that we will have thunderstorms in the summer and winter weather in the winter. Unless the weather situation is particularly dangerous, such as a thunderstorm with tornado activity, then EAS should not be used to alert the public.

5. Communication security. Many of the local and state government agencies are relying on two-way or Remote Pickup Units (RPU) radio links between the County or

⁽²⁾ Media Security Reliability Council, *Infrastructure Working Group Prevention Task Force, Interim Report*, October 29, 2003, 10.

State origination points and the LP or State Relay (SR) stations. Some are using satellite uplinks that are fed with two-way radios. These systems are unprotected against intrusion by anyone with a moderate amount of technical knowledge possessing a radio transmitter and an EAS encoder. Almost all of these radios are unencrypted frequency modulated (FM) type systems. The frequencies of these systems are available through a number of sources; some are even published on the World Wide Web. Due to the "capture" effect of FM demodulation, FM receivers will demodulate the strongest RF signal present. A person with malicious intent could park a mobile radio near a LP-1 station or a repeater and transmit false EAS messages. These messages would be picked up by the LP-1 station and possibly rebroadcast.

B. Strengths

1. With all of that being said, the Partnership for Public Warning (PPW) and the MSRC both assert that EAS is unique resource and should not be scrapped entirely. I agree with that assertion. Since the introduction of Specific Area Message Encoding (SAME), both NOAA weather radio and EAS have become a more precise tools for emergency communications. All broadcasting and cable operators are required to have working SAME (EAS encoder/decoder) equipment installed. They are required to have operators on duty that are trained in the used of such equipment at all times. If there is no operator on duty, the EAS equipment is required to pass through all Federal level alerts automatically.

2. All broadcast and cable operators are required to monitor at least two EAS sources. Many monitor NOAA weather radio as a third source. This redundancy makes the system stronger than the old EBS system, which required only one monitor source.

3. The EAS system and its predecessors have been in place for almost 50 years. There is a great deal of experience on the part of broadcasters with these systems. Since the system is voluntary on the local level, most LP and SP stations are willing participants in the EAS program and recognize the importance of the EAS.

II. Recommendations:

A. With the roll out of HD radio and HD TV, there is an opportunity to upgrade EAS to a more reliable system. The implementation of SAME allows for greater precision in disseminating emergency information. Unfortunately, the consumer electronics manufacturers have not caught on to this idea, with one notable exception. RCA has developed an "Alert Guard" chip for their higher-end television sets. This chip will decode the strongest NOAA weather radio signal and monitor it for alerts. When an alert is received the TV set will pass that information on even if the user is watching a DVD or playing a video game. This is a good start, but the technology needs to be refined. In order to use the SAME features of NOAA weather radio, a method for entering a FIPS code or ZIP code into the consumer unit must be included. Then the consumer must be given the option to have the device turn on if it is off during an alert. Having most consumers get their EAS alerts directly from the All Hazards Network will cut out the interim communications links and make a stronger system. It should be mandatory that the SAME technology is included in all new home radios, TVs and satellite TV receivers sold in the US.

- B. Mobile applications such as car radios and personal listening devices are more difficult to program. It would be difficult to convince drivers to stop each time they enter a new county and enter a FIPS code in their car radio. In this case, car radios should monitor the strongest NOAA weather radio signal and pass on all alerts to the driver. Again, the car's owner must have the option to turn this feature on and off.
- C. In order for NOAA weather radio to really become an all hazards network, an interface between state and local officials and the NWS must be established. This interface must include activation procedures, communication links, and contingency plans. All NWS offices that are responsible for NOAA weather radio transmitter have the capability to originate SAME messages. On the local level, County and City officials need to be able to tap into that resource.
- D. Ensure that all NOAA Weather radio station's communication link between the transmitter and originating office are secure.
- E. As the MSRC survey shows, approximately half of the commercial radio stations in the US have backup power. Television stations were slightly better with about 70 percent reporting auxiliary power available⁽²⁾. These figures are likely high because having a generator in place does not mean that it is being maintained and is in a ready status. Additionally, other systems are required to make transmission systems completely redundant. Most commercial operators in medium and small markets do not have redundancy with auxiliary transmitters, studio to transmitter links, auxiliary antennas and so on. By using the NOAA weather radio as the primary distribution network to both the broadcasters and the public, the government will have complete control of the transmission facilities and will be able to install all of the auxiliary components necessary.
- F. Make the Monitoring of NOAA weather radio mandatory for all broadcast and cable operators. NOAA weather radio covers approximately 95% of the US population. That leaves about 14 million people outside the coverage area. The coverage gaps of NOAA weather radio need to be filled in, particularly over populated areas.
- G. Make the transmission of local and state alerts mandatory for all broadcast and cable operators. Because of the nature of the threats against the US and its citizens, it is much more likely that disasters will occur on a small scale rather than threatening the entire US population. Having the capability to reliably alert the populations of state or county size areas is much more useful. Make sure that all communications links between local and state EAS source and the LP stations are secure.
- H. Refine the way the National Weather Service generates weather related alerts. Over alerting the public will cause the EAS to lose its effectiveness as an emergency communication tool. EAS will become a tune out factor just like the latest car commercial. This is key to making local EAS work.
- I. It should be mandatory that all of the EAS encoders include the expanded message codes that were adopted in 2000. A review of the current EAS codes should be conducted every two years by the NRSC to determine if the current list includes all of the threat possibilities.
- J. Better education of State and Local officials regarding EAS. Cut through the bureaucratic red tape and require all states to have a working plan that is reviewed at least every two years. Encourage the establishment of local plans within operational areas.
- K. It is not recommended that telephone, cellular phones, pagers, or other such devices be relied on to disseminate EAS messages. During the terrorist attack of 9-11-01 the telephone networks became clogged with calls, at times it was impossible to get a dial tone. In certain instances local officials can use the telephone network to augment EAS, such as locations near a nuclear power plant or a chemical storage

facility that would require very rapid notification and evacuation of a relatively small area in the event of an accident.

- L. There should be one person in charge of the EAS within the Department of Homeland Security. This person will be responsible for the implementation, operation and testing of the system.

III Conclusion

As the LECC chairman for Westchester, Rockland, Orange and Putnam counties in New York, I have a good perspective of the current EAS. I have previously served as the co-chairman of the New York State Emergency Communication Committee, as well as the local area chairman for Albany, NY and Harrisburg, PA. With that experience I have learned that the current EAS is flawed but fixable. It will require work from all parties concerned. The Federal Government and the Department of Homeland Security need to step in and require the states to have effective working plans. The States need to work with the broadcasters and cable operators as well as the national weather service to establish procedures and communication links.

The EAS is an evolving system. Reviews such as this need to occur more often to ensure that the current technology is being employed in the most effective manner to keep the citizens of the US as safe as possible.

Sincerely,

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